



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,463	11/06/2001	Kyle N. Patrick	CA9 2000 0073 US1	8341
7590	12/21/2005		EXAMINER	
Karl O. Hesse International Business Machines Corp. IP Law Dept. 8501 IBM Drive Charlotte, NC 28262			PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	
			DATE MAILED: 12/21/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/993,463	PATRICK ET AL.	
	Examiner	Art Unit	
	Brian T. Pendleton	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 September 2005.  
 2a) This action is FINAL. 2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 5-8, 12, 13, 20-23 and 42-46 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 42-46 is/are allowed.  
 6) Claim(s) 5-8, 12 and 20-23 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 06 November 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

***Allowable Subject Matter***

The indicated allowability of claims 5, 12, and 20 is withdrawn in view of the newly discovered reference(s) to Rhode et al, US Patent 6,281,821 and reinterpretation of the Gulick reference. Rejections based on the newly cited reference(s) follow.

Claims 42-46 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: Independent claim 42 recites that the counter value is incremented in response to at least one of the commands indicating a change from no audio content contribution to an audio content contribution by an audio device. That limitation is not disclosed nor suggested in the prior art of record. Gulick increments the counter value in response to a lack of audio content.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-8 and 21-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Parent claim 5 requires that the counter value is incremented in response to the audio status signal. Dependent claim 6 recites that the counter value is decremented in response to the audio status signal. Therefore, there is no definite established

functionality for the counter, since it is responsible for changing a value in two distinct directions for the same action. Claims 21-23 are also rejected as they recite the equivalent limitations.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 5 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gulick.

Gulick discloses a noise elimination system for a personal computer system comprising USB controller 112, amplifier 114, and speaker 116. USB controller 112 contains speaker control unit 208 which monitors the audio channel to detect the absence of data (see column 7 lines 47-61) and controls the speaker power in response to the absence or presence of audio data. The bus monitor 2000, which is part of the speaker control unit 208, has a counter 2004 which increments a counter value in response to the absence of audio data. Thus, the audio status signal indicating a change in audio program content from an audio device is the absence of audio data on the USB detected by the bus monitor 2000. The control signal produced from the audio status signal is the signal from the bus monitor 2000 to the power supply and click suppression unit 2002 causing the sound volume to ramp down. Counter 2004 is incremented in response to the absence of audio data (see column 8 lines 12-39). The control signal is active (no audio present)

and maintained while the counter value is greater than its initial value. The speaker controller is click suppression unit 2002. The control signal from bus monitor 2000 is transmitted to click suppression unit 2002 in response to the audio signal and control signal. Similarly, apparatus claim 20 is met.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulick in view of Rhode et al. Gulick discloses a method of reducing audio noise from a speaker comprising USB controller 112 for producing a control signal 118 indicating whether or not audio program content is imminent in an audio signal 122 operable to be transmitted to speaker 116, and a speaker controller 208 for transmitting the control signal to provide a speaker drive signal in response to the audio signal and control signal. Gulick does not disclose that the speaker controller 208 controls operation of a digital to analog converter operable to produce the audio signal. Rhode et al disclose a digital-to-analog converter with click suppression. The digital-to-analog converter 110 produces an audio signal for speakers 130L and 130R. The operation of digital-to-analog converter 110 is controlled by a power-down or power-up state of a device. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Gulick to control the digital-to-analog converter 214 which produces the audio signal, as

taught by Rhode et al, for the purpose of reducing the noise audible from digital audio sources, a well known technique. Claim 12 is met. As to claim 13, one of ordinary skill in the art would have known to control the input audio source to the digital-to-analog converter to prevent its output by the speaker.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (571) 272-7527. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton  
Primary Examiner  
Art Unit 2644



btp